India picks a builder for its health data hub
https://the-ken.com/story/ihip-health-data-hub/
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After much planning and dithering, the government's idea to digitise everyone's health data has finally taken off. It took two years and seven revisions to put its stamp on the design of the Integrated Health Information Platform (IHIP). And in the last week of December, the health ministry finally decided who will build it.

It wasn't spoilt for choices. There were just three contenders, from which the ministry picked a consortium of two services companies—Pune-based Persistent Systems, and IMS Health, headquartered in Connecticut, US. This, over Delhi's Vayam Technologies and Minnesota-headquartered healthcare company UnitedHealth Group. Both Persistent and UnitedHealth proved their technical ability to build IHIP over many meetings between them and the ministry officials over 2017. On 30 November 2017, however, they were asked to quote their price. Persistent cinched the decision in its favour with the lowest bid at Rs 50 crore ($7.9 million).

"It fell into a sweet spot. This bid is an example of a strategy gone right as we have done this before and we own the intellectual property rights," said a senior executive of Persistent Systems. Founded in 1990, the IT company provides services such as cloud computing, mobility and analytics. Persistent's strength to build IHIP is two-fold—the experience of building health exchange for the state of Louisiana (which connects 16 hospitals) in the US, and the right to tweak it to bring it to India. "It took a lot of time to understand how to do it right, but now, the health information exchange is our product. We can tweak it and sell it anywhere," he elaborated.

Persistent and IMS, which provide services and technology to the healthcare industry, hope to begin the project by March and complete it within the year. Ultimately, IHIP is expected to predict a health emergency, improve the patient experience via a mobile application; and with precise information on disease profiles, it would eventually reduce the cost of government programmes. For instance, by targeting the pre-hypertension population, the government would be able to prevent hypertension and reduce the financial burden of cardiovascular diseases.

Persistent Systems, which earned Rs 2,878 crore ($ 454 million) in 2016-17, brings in much-vaunted and critiqued capability. That of building health information exchanges in the US, the bedrock of former US President Barack Obama's health care policy, Obamacare. But Obamacare didn't have a smooth ride in the US; IHIP may have a rough ride in India, too. One of the major challenges in implementing Obamacare in the US has been pushing doctors and hospitals to collect electronic health records (EHR). In India, apart from other things, EHR, which is rudimentary and rare, also varies from hospital to hospital. More importantly, the excitement within the health ministry isn't reciprocated by the doctors who interact with the patients.

Real-time info can prevent a crisis, only if it is collected
The whiteboard in Pramod Jacob's cubicle has an illustration—the spread of Ebola virus from one village to a few towns and then to cities across the world. "The purpose of collecting health data in real time from a large geography is to not get caught with our pants down," says Jacob, the chief medical officer at dWise Healthcare IT Solutions in Bengaluru. Jacob has developed a health

information system and he helps doctors in hospitals and clinics to implement it, by collecting the information from each patient electronically. He draws another flowchart on the whiteboard—IHIP at the top of the pyramid and at the bottom are patients visiting primary healthcare centres (PHCs) or private clinics. The ministry of health expects each patient's health information to flow from these PHCs and clinics to IHIP.

Say, to prevent cholera deaths, this information can help because the problem is not that we don't have enough medication or paramedics, the problem is that the information does not come through in time, Jacob explains. "With artificial intelligence and machine learning, a lot can be done with the information generated by IHIP but for it to function efficiently, adoption needs to happen at each PHC," he says.

dWise, like an estimated 20,000 electronic health recording software vendors, has one challenge—convincing doctors to use this software. "We can take the bull by the horns, but we can't make it drink because the patient load is so high, there is no intention to go electronic among physicians," says Jacob.

The senior executive of Persistent quoted above agrees that the biggest challenge for IHIP would be to get the doctor to capture the data. "We are planning to use mobile applications that capture health data and are talking to government hospitals. The government is funding digitisation of hospitals, but collecting, digitising, training, building infrastructure and connecting is a bigger project and a longer process than IHIP." Right now, the scope of IHIP is limited to 10 states that have enough digital healthcare infrastructure to be ready to feed information into it. The ministry has not disclosed the names of these states, yet.

When in January 2017 the ministry announced EHR standards, it set the ball rolling by allowing large hospital owners and single doctor-run clinics to collect data in a standardised format. So that they can be connected to each other via IHIP. Since the EHR standards are voluntary, most healthcare providers have shied away from using them. Just like the large India IT services companies who shied away from building IHIP.

You do it, not me
"We knew that most of the Indian IT companies do not have experience in building health information exchanges so we had allowed international players to apply but we were surprised when we received only three bids," a senior bureaucrat in the ministry of health told The Ken.

On a weekend in August 2016, the ministry had invited prospective IT solution providers to gauge their interest and consider their advice. These included Tata Consultancy Services (TCS), Wipro and Infosys, among others, who discussed the 'expression of interest' (EOI) drafted by the health ministry. The representatives of these companies decided against bidding because the EOI was "deeply flawed" and "incomplete". "The architecture was just not right to ensure health information can be exchanged across states," said a former executive of TCS. After that meeting, the ministry issued the 'Request for Proposal' in January 2017 to begin the bidding process. It then issued corrections seven times over last year but most players had just lost interest, he added.

Also, over informal discussions, the ministry officials said that they had a budget of Rs 40 crore ($6.3 million) to build IHIP. "Lots of companies gave feedback including TCS, who said that the budget and the RFP were absurd," said the former executive of TCS. In December 2017, Persistent and IMS quoted Rs 50 crore ($7.9 million) and UnitedHealth quoted Rs 140 crore ($22 million). It made the choice simple for the government, said a government official on the condition of anonymity as the ministry has still not formally made the announcement.

Further, other companies found the stipulated deadline of building IHIP in a year hard to meet. "We wanted to go as fast as possible to develop the platform and use more time to create bridges across existing information systems, which will happen in phases," said the bureaucrat quoted above. The ministry is considering some hospitals and information systems built by state governments to see how they connect with IHIP. These include Postgraduate Institute of Medical Education and Research, Chandigarh; Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry; Guru Gobind Singh Hospital, Delhi; and the states of Tamil Nadu, Karnataka, Haryana, Rajasthan, Kerala, Telangana and Andhra Pradesh. The government has not indicated how private hospitals would be connected to the IHIP.

It is just the first step
Persistent has been on a journey to build a large health information system for over a decade. It started by building one in Louisiana in 2011. It spent 2016 looking for a partner to meet the requirements of the Indian bid. In IMS Health it found a company that would help it qualify for the bid, and it had an office in Delhi and the experience of working with the government. It made a good fit, says a Persistent executive. He is looking forward to collecting the health information which can be used by health insurance providers, pharmaceutical companies, policymakers and academics.

"IHIP will make complete data of one state like life expectancy, vaccination, tobacco consumption and prevalence of obesity available, for instance. At least of districts and blocks data, if not villages initially," he added.

By building IHIP, the government expects data to drive healthcare for the first time in India. The ministry has also proposed National Digital Health Authority, which will ensure 'development and promotion of eHealth ecosystem in India'. A privacy law to guard patients' data is also in the works.

However, the biggest challenge for India still remains paucity of doctors, who are expected to collect data that alone can make IHIP a success or a failure. Consider this, it has taken the US seven years to build infrastructure to collect and exchange health information since the Affordable Care Act was enacted in 2010. And the US has one doctor per 390 patients against 1,700 patients in India. In addition, these doctors need to be convinced and trained to feed into IHIP. Is anybody even thinking about that?